GOVERNMENT OF INDIA
NON-CONVENTIONAL ENERGY SOURCES
LOK SABHA

STARRED QUESTION NO:47
ANSWERED ON:21.11.2002
WELFARE SCHEMES UNDER SOLAR ENERGY PROGRAMME
KAILASH MEGHWAL

Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) the names and other details of the welfare schemes being run under `Solar Energy Programme` by his Ministry and the formula adopted to provide loans, grants and other financial assistance by the Union Government and the contribution or financial share of each of the state Government therein;

(b) the names of the welfare schemes being run directly by the Union Government or the Government of Rajasthan or any other voluntary organization under Solar Energy Programme in Rajasthan during the last three years till date; and

(c) the amount provided by the Union Government as loans, grants or financial assistance indicating year-wise, scheme-wise and agency-wise details thereof?

Answer

MINISTER OF STATE FOR NON-CONVENTIONAL ENERGY SOURCES (SHRI M. KANNAPPAN)

(a), (b) & (c): A statement is laid on the table of the house.

Statement referred to in reply to Parts (a),(b)&(c) of Lok Sabha Starred Question No. 47 for 21.11.2002 regarding Welfare Schemes under Solar Energy Programme.

(a): The Ministry of Non-Conventional Energy Sources is implementing a number of schemes under the solar energy programme wherein subsidy and/or soft loan is provided to users of such systems. The details of the norms for financial assistance provided by the Ministry under different schemes are given in Annexure I. In all cases the balance cost of the systems covered under the schemes is to be met by the beneficiaries or the implementing agency.

(b)&(c): The Ministry has been implementing schemes on deployment of solar phototvoltaic (PV) systems, solar thermal systems and solar power generation in Rajasthan. These schemes are being implemented by the state nodal agency viz. Rajasthan Energy Development Agency (REDA), which is now known as Rajasthan Renewable Energy Corporation Ltd (RREC). The Government o Rajasthan is also providing funds to the state nodal agency, which are being used to support additional users. Other organizations like Social Work & Research Centre (SWRC), Tilonia and World Renewal Spiritual Trust (WRST), Mount Abu are also involved i implementation of programmes on solar PV systems and solar thermal systems. The details of funds provided by the Ministry to these agencies in Rajasthan during the last three years and till date this year are as given below :

(Rs. In lakhs)

Name of Scheme	Name of Agency	1999-2000	2000-01	2001-02	2002-03 (tilldate)
SPV Programme	REDA/RREC	308.00	141.92	474.22	350.58
	SWRC	7.12	70.29	100.06	56.46
	WRST	-	40.32	42.79	18.31
Solar Thermal Programme	REDA/RREC	-	-	-	-
	SWRC	-	-	-	-
	WRST	3.19	0.70	1.25	-
SPV Market Dev. Programme (loan from IREDA)	SWRC	35.30	-	109.29	59.55
Solar Power	REDA/RREC	9.75	-	83.67	5.00

Annexure-I

FUNDING NORMS FOR SOLAR ENERGY PROGRAMMES DURING 2002-2003

SOLAR PHOTOVOLTAICS

1.0 Solar Home Systems, Street Lights, Power Plants, Solar Generators, Building Integrated Photovoltaic (BIPV) systems and other community applications

Sl.No.	SPV System	Central Subsidy General Areas	Central Subsidy North Eastern States
1.	Solar Home System	50 % of ex-works cost, subject to a maximum of	90 % of ex-works cost, subject to a maximum of
	Model 1 (18 W module, 1 light)	Rs. 3,000/-	Rs. 5,000/-
	Model 2 (37 W module, 2 lights)	Rs. 5,500/-	Rs. 10,000/-
	Model 3 (37 W module, 1 light, 1 fan)	Rs. 5,500/-	Rs. 10,000/-
	Model 4 (74 W module, 2 lights, 1 fan)	Rs. 10,000/-	Rs. 18,000/-
	Model 5 (74 W module, 4 lights)	Rs. 10,000/-	Rs. 18,000/-
2.	Street Lighting System	Rs. 11, 000/-	Rs. 20, 000/-
3.	Power Plants & Other Community Systems	Rs. 1,80,000 / kWp of PV array Capacity	Rs. 3,50,000/kWp of PV array Capacity
4.	Solar generators (150 W - 600 W)	40% with a maximum of Rs. 40,000	
5.	Building Integrated Photovoltaic Systems (BIPV)	80% of the cost of photovoltaic modules used in BIPV projects	

2.0 Solar PV Water Pumping Systems for Agriculture & related uses

S. No.	Implementation Arrangement	Central Subsidy	Other Support
1.	Direct marketing by manufacturers, subsidy routed through the Indian Renewable Energy Development Agency (IREDA)	Rs. 110 per watt of photovoltaic (PV) array used, subject to a maximum of Rs. 2.5 lakhs per system on 90% of the remaining unsubsidized price, to be repaid in 10 years, with one year moratorium.	Soft loan @ 2.5% and 5% interest rate to intermediaries and users respectively
2.	Direct procurement by States	Rs. 135 per watt of PV array used, subject to a maximum of Rs. 2.5 lakhs per system	
3.	Direct procurement by NE States	90 % of approved	

ex-works cost of system

4. Community Drinking water supply Rs. 110 per watt of PV array used, subject to a maximum of Rs. 2.5 lakhs per system

3.0 Grid Connected Solar PV Power Projects

For grid connected PV power plants for voltage support in rural grids, peak load shaving in urban centers and diesel saving in islands/remote locations, subsidy up to 2/3rd of the project cost is provided subject to a maximum of Rs. 2 crores for a 100 kW capacity project. The Ministry also provides up to Rs. 1 lakh for preparing a detailed project feasibility report. In addition an amount up to Rs. 5 lakhs is provided to the state agency for monitoring of the project. The Ministry also supports captive projects by industry for which interest subsidy up to 4% is provided, with floor rate of interest of 10%.

4.0 Soft Loan Scheme on PV systems

The Ministry provides interest subsidy to IREDA (Indian Renewable Energy Development Agency) and banks to provide soft loans to the users / intermediaries at the rates specified below.

(a) Solar lanterns

S.No.	Feature	Implementation through	
		IREDA	Banks
1.	Loans for solar lanterns	85% of the lantern cost to be given as loan @ 5% interest in general areas and 3% in NE region.	85% of the lantern cost to be given as loan @ 5% interest in general areas and 3% in NE region.

(b) Other PV Systems

S.N	Soft Loan through	Interest Rate (%) p.a.	Repayment Period (Years)	Moratorium (Years)	Minimum Beneficiary Contribution (%)
1.	IREDA (for commercial users)	7	5	1	20
2.	IREDA (for non-commercial users)	5	5	1	20
3.	Banks (for individuals & organizations who do not claim depreciation)	5	5	Nil	15

Solar pumps are not covered under this scheme.

SOLAR THERMAL PROGRAMME

1.0 Concentrating type Solar cookers

Type of solar cooker	Support to users
Dish solar cooker (Minimum diameter 1.4 m)	50% of total cost, limited to Rs.2500/- per cooker.
Community solar cooker for indoor cooking (Minimum aperture area (7 sq. m.)	50% of eligible capital cost, limited to Rs.25000/- per cooker
Solar Steam Cooking system	50% of eligible capital cost, as agreed upon by the Ministry

2.0 Demonstration programme in NE and New Technology demonstration

Following are the details of subsidy provided by the Ministry for demonstration projects in NE region, Islands and Jammu & Kashmir :

1. Rs. 6000 per sq. m. of collector area for NE region

2. Rs. 4000 per sq. m for islands and Jammu & Kashmir

3. Under demonstration projects 50% of the system cost is provided as subsidy for trying new technologies in any part of the country

3.0 Soft loan Scheme

Following are details of the scheme :

Borrowers	Eligible applications	Eligible end users	Interest Rate to end users
Through IREDA			
Financial intermediaries of IREDA (will get loans from IREDA for on-lending to: 1. Individuals & non-profit organizations @ 2.5%; 2. Industry, hotels, and swimming pool other commercial organizations @ 4.5%)	Solar water heating system (any capacity), solar air heating & ination system, solar desal- zations etc. (non- individuals organizations)	1.Individuals, institutions,trusts, non-profit charitable organi- organizations 2. Industry, hotels, hospitals, other business establishments /commercial organizations	@ 5% to 7% to commercial

End users (non-commercial)	Solar water heating system (any capacity), Solar air heating system, solar desali- nation system, solar swimming pool	Institutions, trusts, charitable organiza- tions etc. (non-profit organizations)	5%
End users (commercial)	Solar water heating system (any capacity), solar air heating system, solar desali- nation system, solar swimming pool	Industry, hotels, hospitals, other business establishments / commercial organizations	7%
Through Banks and FIs (including housing financing organizations)			
Individuals, institutions, hospitals, nursing homes, small business establishments, housing cooperative societies, /developers etc..	Solar water heating system (up to 5000 litres capacity)	Individuals,institutions, hospitals, nursing homes, small business establishments, housing cooperative societies / developers etc.. Hotels not eligible	@ 5%
Individuals, institutions, hospitals, nursing homes, small business establishments, agricultural cooperatives etc..	Solar drying units	Individuals,institutions, hospitals, nursing homes, small business establishments, agricultural cooperatives etc..	@ 5%

@ End-users (other than individuals) will have to give an undertaking that no depreciation allowance will be claimed under income tax rules.

The following Banks are operating the interest subsidy scheme on solar water heaters :

Canara Bank, Union Bank of India, Andhra Bank, Bank of Maharashtra, Punjab & Sind Bank, Syndicate Bank and Punjab National Bank

4.0 Solar Buildings

Financial assistance up to 10% of the cost of construction, subject to a maximum of Rs. 10 lakhs for buildings to be constructed in Government/semi-Government sector.

SOLAR ENERGY PROGRAMMES FINANCED BY IREDA

In addition to subsidy and soft loan programmes of the Ministry, IREDA also provides loan to solar energy projects as per given norms:

S.No.	Programme / Scheme	Interest Rate (%) p.a.	Repayment Period incl. Moratorium (maximum) (Years)	Moratorium (maximum) (Years)	Minimum Promoters` Contribution (%)

1. SPV Manufacturing 13.5 8 2 30

2. SPV Market Development 13.5 10 1 20

3. Solar Thermal Systems 13.5 10 1 20

OTHER INCENTIVES

To support generation and development of non-conventional energy sources including solar energy, a number of incentives such as 80% accelerated depreciation, concessional duty import of raw materials, consumables and components, concessional duty for import of machinery for power projects and excise duty exemption on certain devices/systems have been provided by the Government. The Ministry also provides support for R&D, training and other related activities.